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PATENT OFFICE
BOARD OF PATENT APPEALS
WASHINGTON, D.C.

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

This opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MAURI KOIVURANTA
and MICHAEL ODELL

Appeal No. 94-1848
Application 07/850,505¹

ON BRIEF

Before CALVERT, Administrative Patent Judge, and McCANDLISH, Senior Administrative Patent Judge, and LYDDANE, Administrative Patent Judge.

CALVERT, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the examiner's refusal to allow claims 1 to 4 and 6 to 13. Of the other claims in the application, claim 5 has been indicated as being allowable, subject to being rewritten

¹ Application for patent filed March 13, 1992.

in independent form, and claims 14, 15 and 17 to 20 have been allowed.

Claim 1, the only independent claim on appeal, is illustrative of the subject matter in issue, and reads as follows:

1. A twin-wire web former in a paper machine, comprising

a covering wire and a carrying wire which define a twin-wire forming zone with one another, said wires being guided by breast rolls, a forming gap being located at the beginning of said twin-wire forming zone,

a headbox having a discharge opening, said headbox being structured and arranged to feed a pulp suspension jet from said discharge opening into said forming gap to form a web,

a forming shoe which follows said forming gap and is arranged in said twin-wire forming zone, said forming shoe being provided with a curved guide deck,

a first forming roll arranged after said forming shoe, the web being detached after said first forming roll from said covering wire and passed on said carrying wire to a pick-up point,

a first draining unit provided after said forming shoe and before said first forming roll, said first draining unit comprising a press/support unit which guides an associated one of said wires placed in contact with it as a substantially straight run, said press/support unit structured and arranged to apply an adjustable compression pressure to the web such that said press/support unit is flexible in loading, the distribution of the compression pressure in said press/support unit also being adjustable in the running direction of the web, said first draining unit further comprising a draining equipment provided with suction and foil equipment, said draining equipment placed opposite to said press/support unit such that said wires run between said draining equipment and said press/support unit and said draining equipment structured and arranged to remove a substantial amount of water out of the web.

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The pertinent references relied on by the examiner in finally rejecting the claims on appeal are:²

Tissari	4,609,435	Sep. 2, 1986
European Application (Partanen)	0,397,430	Nov. 14, 1990
PCT Application (Bück et al.)	WO 91/02842	Mar. 7, 1991 ³

Claims 1 to 4 and 6 to 13 stand finally rejected under 35 USC 103 as being unpatentable over the European application (EP '430) in view of the PCT application (WO '842) or Tissari.

Before considering the rejection, we note that on May 3, 1993, appellants filed a declaration under 37 CFR 1.132 along with an amendment under 37 CFR 1.116. In an Advisory Action mailed May 17, 1993 (Paper No. 14), the examiner advised that the amendment would be entered upon the filing of an appeal, but on pages 2 and 7 of her answer states that the declaration has not been considered. We therefore have not given the declaration any consideration in reaching our decision herein.

² The examiner states in the answer (p. 3) that a fourth reference, WO 89/11000, also applied in the final rejection, is dropped as being cumulative.

³ On page 4 of the answer, the examiner cites Canadian application 2,053,239 (Feb. 23, 1991) as being an English translation of this reference. There being no objection from appellants, we will accept the examiner's characterization of the Canadian application, and accordingly, all references in this decision to pages and lines of the WO 91/02842 reference will be understood as being to pages and lines of the Canadian application.

The examiner's position with regard to patentability of the appealed claims is summarized in the following quotation from pages 3 to 4 of the answer:

... the use of an additional well known dewatering device such as a curved shoe before the press support unit [117, etc. of EP '403] would have been prima facie obvious for the known advantages of multiple dewatering devices and as suggested by each of WO '842 or Tissari which show twin wire gap formers followed by multiple dewatering shoes, especially WO '842 showing a shoe 16 followed by a similar "unit" (26, 27, 28).

After fully considering the record in light of the arguments presented by appellants and by the examiner, we conclude that the subject matter recited in claim 1 would have been obvious over the applied prior art.

Appellants, citing col. 2, lines 24-32 of EP '430, assert that this reference teaches away from the use of a curved forming shoe at the beginning point of a two-wire forming zone. However, as the examiner points out, the cited portion of the reference does not entirely rule out the use of a curved shoe, but rather teaches the disadvantage of using a "steeply" curved forming shoe in a hybrid former. In fact, we note that at col. 5, lines 25-29, the reference teaches the use of a curved shoe (suction box 25) with a "slightly" curved top whose radius is selected "so that it guides the web smoothly without excessive pressure shock."

Moreover, we do not agree with appellants' statement on pages 6-7 of their brief that EP '430 discloses only two alternative

embodiments. In addition to the two alternatives listed by appellants, EP '430 discloses at col. 4, lines 43-53 at least one further alternative, i.e., the Fig. 1 embodiment in which headbox 1a is used, instead of headbox 1, "to feed the stock at the headbox consistency directly into the tapered gap between the wire loops 10 and 20." Using this alternative, the straight run 20a (Fourdrinier section) would serve no purpose, so that it would have been obvious to eliminate it, in which case the carrying (lower) wire 20 would be led around a roll opposite roll 11a. The resulting arrangement would seem to meet all the structure recited in claim 1.

It is also not evident to us that the secondary references, particularly WO '842, do not suggest the claimed invention. Considering the apparatus disclosed in this reference, we find a covering wire 12, a carrying wire 11, breast rolls 13, 14, a headbox discharging a pulp jet 10 into gap 15, a forming shoe 16 with a curved deck, a first forming roll 20, and a first draining unit with a press/support unit guiding the wires in a substantially straight run II, the unit applying adjustable pressure to the web,⁴ and suction and foil equipment, 21, 22, 28 placed opposite the press/support unit. Thus, since WO '842 discloses virtually all the apparatus recited in claim 1, we do not agree with appellants

⁴ Contrary to appellants' statements at pages 8-9 of their brief, WO '842 discloses applying adjustable pressure at p. 7, lines 1-9, as well as a straight run at II (p. 8, lines 1-2).

that none of the secondary references hint or suggest placing an additional dewatering device in advance of a press/support unit.

Accordingly, the rejection of claim 1 will be sustained. Claims 2 and 6 to 13, being dependent on claim 1 and not argued separately, fall therewith.

Appellants did not specifically group claim 3 (and claim 4 dependent thereon) as being separately patentable from claim 1 (see 37 CFR 1.192(c)(7)), but, considering issue 2 on page 3 of their brief together with the argument presented on pages 14-15 (section 3), we consider that they have done so by inference, and will consider claims 3 (and 4) separately.

Claim 3 reads:

3. The web former of claim 2, wherein said twin-wire zone is arranged as a horizontal straight run, and said first draining unit is arranged such that said press/support unit is located underneath and inside a loop of said carrying wire and such that said draining equipment is located above and inside a loop of said covering wire.

Appellants assert that EP '430 does not disclose a "horizontal straight run through the dewatering unit and therefore cannot have a straight run in the twin-wire zone as set forth in claim 3." They argue that one would not be motivated to alter the EP '430 press unit to create a straight run "as such would frustrate the purposes of the EP '430 reference;" moreover, "the secondary references all show a [sic] curved twin-wire sections." The examiner, on the other hand, states that these arguments are not persuasive, since EP '430 shows a horizontal run in Figs. 1 and 2.

Before considering these arguments, we must attempt to determine what claim 3 covers. In parent claim 1, appellants recite that a forming shoe having a curved guide deck is arranged in the twin-wire forming zone, while claim 3 recites that "said twin-wire [forming] zone is arranged as a horizontal straight run." These two recitations are inconsistent on their face, since the twin-wire zone cannot both pass over a curved guide shoe and be straight at the same time. Attempting to read claim 3 in the light of appellants' specification does not resolve this discrepancy, since the twin-wire zone as defined therein does not appear to be entirely straight.⁵ In our view, claim 3 is indefinite, because one of ordinary skill in the art would be unable to understand the bounds of the claim. See In re Merat, 519 F.2d 1390, 1396, 186 USPQ 471, 476 (CCPA 1975).

Since claim 3 is indefinite in scope, the rejection of it and of dependent claim 4 under 35 USC 103 cannot be sustained. In re Steele, 305 F.2d 859, 862-863, 134 USPQ 292, 295 (CCPA 1962). However, this should not be taken as an indication that these claims would necessarily be patentable over the prior art applied by the examiner in the event that the rejections under 35 USC 112, entered below pursuant to 37 CFR 1.196(b), are overcome.

⁵ See the rejection under 35 USC 112, first paragraph, *infra*.

Pursuant to 37 CFR 1.196(b), claims 3 and 4 are rejected under 35 USC 112, first and second paragraphs.

Claims 3 and 4 do not comply with the requirements of the second paragraph of § 112 in that they are indefinite, for the reasons stated above.

The question of compliance with the first paragraph of § 112 originates in claim 3's recitation that "said twin-wire [forming] zone is arranged as a horizontal straight run." In the application, the twin-wire forming zone is defined as being the area in which the wires 10 and 20 run jointly, e.g., the zone between A and B in Fig. 1 (p. 6, lines 21-23). However, we do not find any disclosure in the application as filed of an entire twin-wire forming zone which is both horizontal and straight, as recited in claim 3. While parts of such zones, such as the MB-unit 50 (Figs. 3 and 4), or other parts (e.g., p. 9, line 24 and p. 10, line 2) may be horizontal and straight, nowhere is a completely horizontal, straight twin-wire zone disclosed. There is, therefore, no compliance with the written description requirement of the first paragraph of § 112 as to this limitation.

Moreover, since the twin-wire forming zone includes a shoe with a curved guide deck, it does not appear that one of ordinary skill in the art would be able to make and use a machine as recited in claim 3, since the twin-wire zone would necessarily curve where it passed over the shoe, and therefore could not be made entirely

straight. As a result, as to claim 3 the application does not satisfy the enablement requirement of § 112, first paragraph.

In summary:

1. The examiner's decision to reject claims 1, 2 and 6 to 13 is affirmed, and to reject claims 3 and 4 is reversed.

2. Claims 3 and 4 are rejected pursuant to 37 CFR 1.196(b).

Any request for reconsideration or modification of this decision by the Board of Patent Appeals and Interferences based upon the same record must be filed within one month from the date hereof (37 CFR 1.197).

With respect to the new rejection under 37 CFR 1.196(b), should appellants elect the alternate option under that rule to prosecute further before the Primary Examiner by way of amendment or showing of facts, or both, not previously of record, a shortened statutory period for making such response is hereby set to expire two months from the date of this decision. In the event appellants elect this alternate option, in order to preserve the right to seek review under 35 U.S.C. 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellants elect prosecution before the examiner and this does not result in allowance of the application, abandonment

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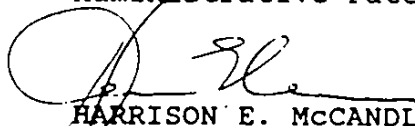
or a second appeal, this case should be returned to us for final action on the affirmed rejection, including any timely request for reconsideration thereof.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR 1.136(a).

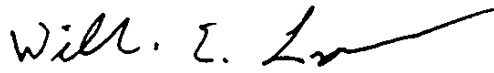
AFFIRMED-IN-PART; 37 CFR 1.196(b)



IAN A. CALVERT)
Administrative Patent Judge)



HARRISON E. MCCANDLISH) BOARD OF PATENT
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